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[54] **METHOD FOR IMPROVING
ELECTROMAGNETIC SHIELDING
PERFORMANCE OF COMPOSITE
MATERIALS BY ELECTROPLATING**

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[51] **Int. Cl.⁶** **C25D 5/24; C25D 5/00**

[52] **U.S. Cl.** **205/158; 205/164; 205/220; 264/22; 523/204; 523/210; 523/300**

[58] **Field of Search** **205/91, 189, 164, 162, 205/158, 220; 523/215, 300, 204, 210; 524/431, 434, 440; 264/22**

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[57] **ABSTRACT**

A method of improving the electromagnetic (EM) shielding performance of a composite material is provided. The composite material has conductive and semi-conductive filler particles suspended in a non-conductive resin. The filler particles can be up to 40 weight percent of the composite material. The composite material is electroplated with a conductive material onto a portion of its surface to improve the electrical connection between the conductive material and a portion of the filler particles. EM shielding performance can be further enhanced by injecting an exponentially decaying electromagnetic pulse through the composite material that has been electroplated.

10 Claims, No Drawings